

In the Claims

Claims

1. (Currently amended) A method of retrieving ~~the~~ a movie image, comprising the steps of:

sequentially inputting, into a processor, subject movie images from the movie image information comprising a number of successive images;

deriving feature values which vary in time from the signal of the inputted movie images;

producing first feature value information by quantization of the time feature values of the derived signal with a predetermined width of quantization;

deriving second feature value information which corresponds to the first feature value information and which is subjected to comparison operation, stored in advance in data-base; and

matching, using a quantization error, the first feature value information with the second feature value ~~in-formation~~ information in accordance with a predetermined determination formula.

2. (Original) A method of retrieving the movie image according to claim 1, in which said method further comprising a step of grouping the first feature value information using a predetermined standard so that third feature value information is produced, in which the second feature value information corresponding to the third feature value information is derived from the data-base storing in advance, and in which the matching for both the grouped feature value information is conducted using a grouped quantization error.
3. (Original) A method of retrieving the movie image according to claim 1, in which numerical picture element data such as luminance, brightness, saturation, color space, or frequency distribution thereof is used as the feature value information derived from the signal of the movie image.
4. (Original) A method of retrieving the movie image according to claim 1, in which in performing the matching using the quantization error, the step for producing the first feature value information is stopped if necessary and the matching result up to that time is outputted.
5. (Original) A method of retrieving the movie image according to claim 1, in which the matching using the quantization error is performed using the value of at least one quantization period length.

6. (Original) A method of retrieving the movie image according to claim 1, in which the matching using the quantization error is performed using the representative value of at least one quantization period.
7. (Original) A method of retrieving the movie image according to claim 1, in which the matching using the quantization error is performed using the value of at least one quantization period length and the representative value of at least one quantization period.
8. (Original) A method of retrieving the movie image according to claim 2, in which the third feature value information is produced by grouping using more than one quantization period lengths and the average or distribution representative value of representative values of more than one quantization periods.
9. (Original) A method of retrieving the movie image according to claim 1, in which, by using numerical data in synchronized audio information accompanying to the movie image information, retrieving of the movie image is conducted using an audio signal.
10. (Original) A method of retrieving the movie image according to claim 9, in which in performing the matching using the quantization error, the step for producing the first feature value information is stopped if necessary and the matching result up to that time is outputted.

11. (Currently amended) An apparatus for retrieving ~~the~~ a movie image comprising:
- an image input means for sequentially inputting, into a processor, the subject movie images from the movie image information comprising a number of successive images;
 - a feature value calculation means which comprises a feature value deriving section for deriving feature values which vary in time from the signal of the movie images inputted through the image input means, and a quantization process section for quantizing, with a predetermined width of quantization, the feature value derived from said feature value deriving section so that feature value information is produced;
 - a comparative information selection means for deriving, from a data-base that stores information in advance, comparative feature value information corresponding to the movie image inputted through the image input means;
 - a matching process means for performing movie image matching in accordance with a determination formula using a quantization error between the feature value information obtained at the quantization process section in the feature value calculation means and the feature value information derived at the comparative information selection means; and
 - a search result process means for outputting the result obtained at the matching process means.

12. (Original) An apparatus for retrieving the movie image according to claim 11, in which said feature value calculation means further comprises a grouping section for grouping, based on a predetermined standard, the feature value information to produce new feature value information.

13. (Original) An apparatus for retrieving the movie image according to claim 11, in which numerical picture element data such as luminance, brightness, saturation, color space, or frequency distribution thereof is used as the feature value information derived from the signal of the movie image.

14. (Original) An apparatus for retrieving the movie image according to claim 11, in which the matching process means for conducting matching of the feature value information using the quantization error has a stop means for stopping the operation of the feature value calculation means if necessary, and an output means for outputting the matching result up to that time.

15. (Original) An apparatus for retrieving the movie image according to claim 11, in which the matching process means conducts matching using the value of at least one quantization period length.

16. (Original) An apparatus for retrieving the movie image according to claim 11, in which the matching process means conducts matching using the representative value in at least one quantization period.

17. (Currently amended) An apparatus for retrieving the movie image according to claim 11, ~~in which~~ in which the matching process means conducts matching using the value of at least one quantization period length and the representative value of at least one quantization period.

18. (Original) An apparatus for retrieving the movie image according to claim 12, in which said grouping section produces the new feature value information by grouping more than one quantization period lengths and the averaged or distributed representative value of representative values of more than one quantization periods.

19. (Original) An apparatus for retrieving the movie image according to claim 11, in which numerical data in synchronized audio information accompanying to the movie image information is used to retrieve the movie image.

Claim 20 (Canceled).